



Our Coast–Our Future

Planning for Sea Level Rise and Storms in the San Francisco Bay Area

Kelley Higgason, Project Coordinator, GFNMS
Tools for Coastal Climate Change Vulnerability
Assessment and Adaptation Planning

National Adaptation Forum

April 3, 2013



Goal

Provide science-based, decision support tools to help understand, visualize, and anticipate coastal climate change impacts to Bay Area communities and ecosystems.



Objectives

Model vulnerabilities to SLR & storm hazards

- Seamless DEM (2 m res); 40 SLR and storm scenarios using CoSMoS
- Inputs: water levels, wave heights, flooding + vertical land motion, flood flows, Delta discharge, wind waves for SF Bay

Assess stakeholder information needs

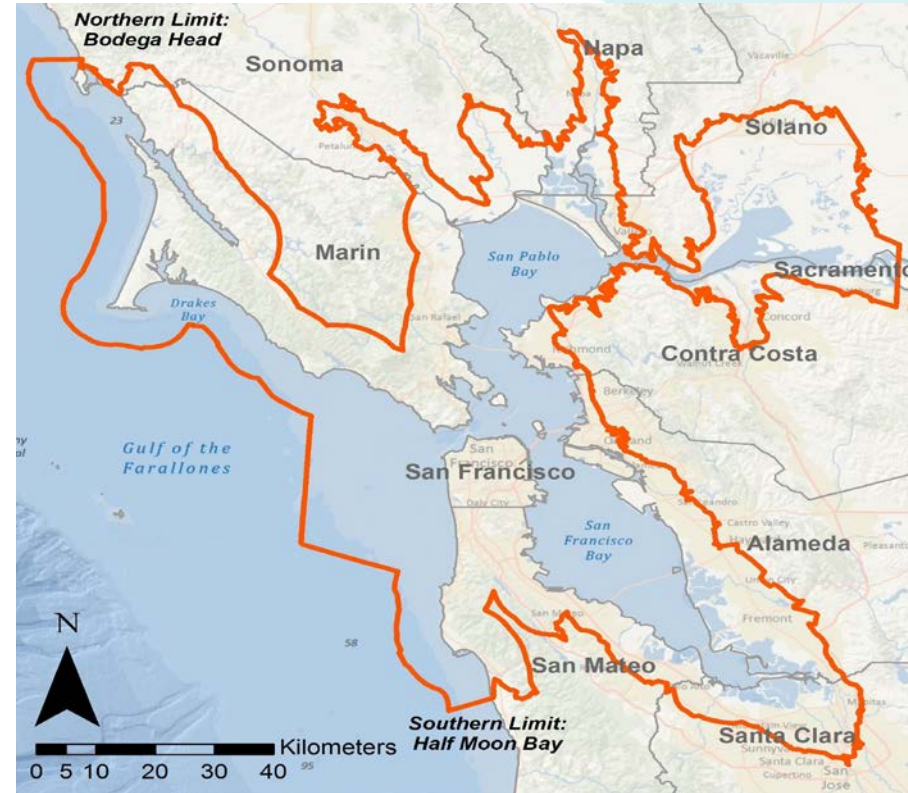
- 3 Scoping Workshops
- 2 Outer Coast Focus Group Meetings
- Quarterly SF Bay Advisory Committee Meetings

Map vulnerabilities at appropriate scale for management action

- Interactive map including infrastructure and ecosystem vulnerabilities

Project Scope

- Outer Coast Nov 2010
- SF Bay Nov 2011, expanded:
 - Geographic scope
 - Model inputs
 - Stakeholder engagement
 - Partners
 - Technical Assistance



Diverse Team

Team Leads




Barnard, USGS

- DEM and scenarios with CoSMoS



Ballard/Fitzgibbon, PRBO

- Online decision support tools



Higgason, GFNMS

- Project management



Psaros, Coravai LCC

- Collaborative process

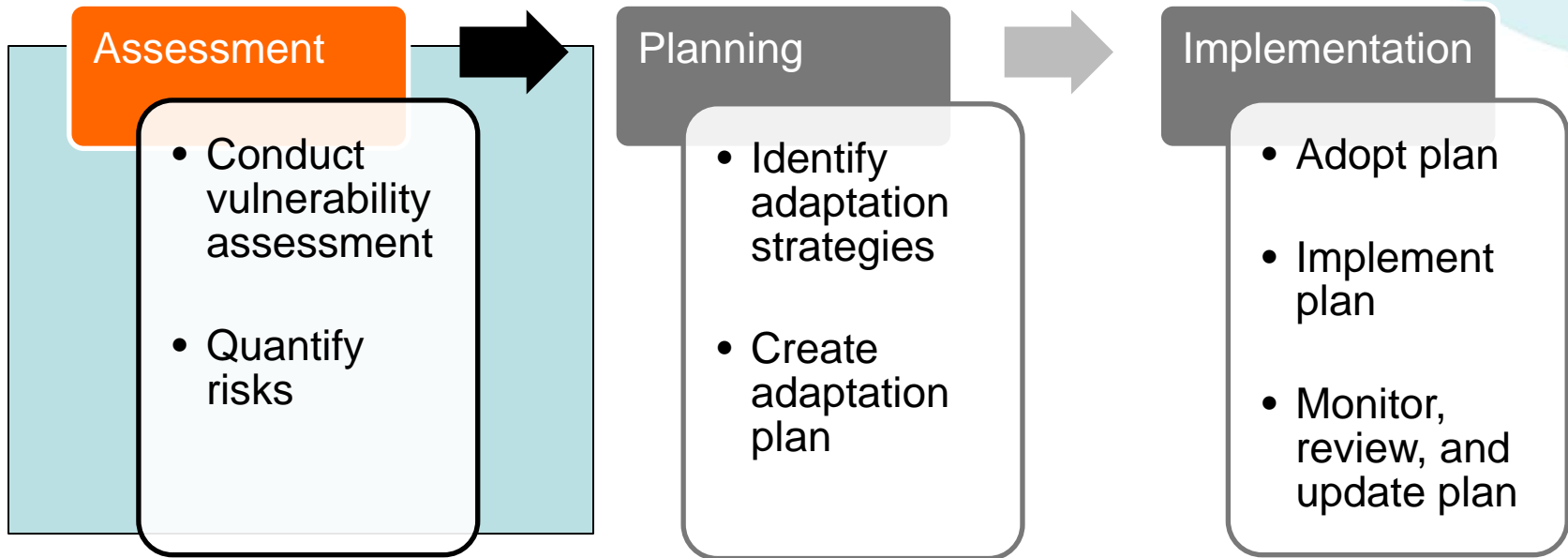
Other Partners

- Coastal Services Center
- SF Bay NERR
- National Park Service
- EBM Tools Network

Funders

- NOAA Climate Program Office
- NERRS Science Collaborative

OCOF and the Adaptation Planning Process



WELCOME

Our Coast Our Future (OCOF) is a collaborative, user-driven project focused on providing San Francisco Bay Area coastal resource and land use managers and planners locally relevant, online maps and tools to help understand, visualize, and anticipate vulnerabilities to sea level rise and storms within the bay and on the outer coast from Half Moon Bay to Bodega Bay.

Beta Version: The OCOF web site is now ready for use on the outer coast. We [welcome your feedback](#) and want to know what you think of this project and research.



Ocean Beach



Embarcadero



Rio Del Mar

What's New?

The Beta version of the Our Coast Our Future (OCOF) website is now available.

Frequently Asked Questions about Our Coast Our Future (OCOF)

Please click on a question to reveal the answer.

GENERAL

What is OCOF?

How can the OCOF scenario models and interactive tools help me?

How is this tool different from other sea level rise mapping efforts?

1. [NOAA Sea-level Rise Viewer](#): The NOAA Coastal Services Center's Sea Level Rise and Coastal Flooding Impacts Viewer provides users the ability to visualize areas potentially impacted by sea level rise side-by-side with other data such as critical infrastructure, roads, ecologically sensitive areas, demographics, and economics. This is a sophisticated screening level tool that models coastal flooding from the combination of a high tide and sea level rise only. The data and maps do not include storm surges nor do they account for erosion, subsidence, or future construction. The tool uses a modified bath-tub approach that accounts for local tidal variability using the NOAA VDATUM model and includes hydraulic connectivity.
2. [FEMA California Coastal Analysis and Mapping Project \(CCAMP\)](#): The CCAMP study area covers the entire California open Pacific coast, including the nine San Francisco Bay Area counties. The new detailed coastal engineering analyses and mapping will revise and update the flood and wave hazard data shown on the coastal Flood Insurance Study reports and Flood Insurance Rate Maps based on existing conditions for each of the twenty coastal counties. Through Risk MAP, CCAMP will develop enhanced products and tools to help communities understand and mitigate existing coastal flood hazards and risks, while OCOF's online decision support tools project future flood hazards and risks resulting from sea level rise and storms within the San Francisco Bay Area.

What is the difference between PRBO Future San Francisco Bay Tidal Marsh website and OCOF?

If I have questions about sea level rise in San Francisco Bay, should I use OCOF or PRBO's Sea Level Rise website?

GEOGRAPHIC COVERAGE

What is the current geographic extent and resolution of the Digital Elevation Model and decision support tool?

How did you choose the OCOF project boundary?

DATA

Which LIDAR data do you use?



Our Coast Our Future Web Tool Tutorial



PRBOConsSci · 19 videos

Subscribe 20

2 views



About

Share

Add to



Published on Feb 18, 2013

Watch this tutorial to learn how to use the tools on this website. The tools are aimed at San Francisco Bay Area coastal resource and land use managers and planners.

Show more

All Comments (0)

Sign in now to post a comment!



Rich Stallcup (1944-2012) Memorial Tribute, Jan

by PRBOConsSci
127 views



Rich Stallcup Visual Tribute (8 min)- PRBO

by PRBOConsSci
188 views



PRBO San Francisco Bay Sea Level Rise Tool

by PRBOConsSci
44 views



Badger Foraging in CA Grasslands

by PRBOConsSci
360 views



STRAW Virtual Summit 2011: Park School at

by PRBOConsSci
178 views



Living the Legacy

by PRBOConsSci
78 views



A Tour of Pickleweed Park by students in

by PRBOConsSci
158 views



Top 3 Most Common Birds

by PRBOConsSci
86 views



How to Find Birds, BIG and small, at

by PRBOConsSci
67 views

Send feedback



Please Sign In or Register

You must register and sign in to use the OCOF Interactive Tools.

Sign in

or

Register

Email Address:

enter

[Click Here to Register for an OCOF Account](#)

By registering for this site, you will have access to the interactive Our Coast, Our Future tool that was created to help you visualize the effects of weather events, such as flooding, combined with sea level rise and storm frequency, along the North-central coast of California, from Bodega Head in the north, to Half Moon Bay in the south. By summer 2014, the entire shoreline of the San Francisco Bay will also be added to the mapping tool to provide seamless coverage for the 9 county Bay Area.

get started

clear

recenter

1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding

Waves

Current

Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None

Annual

20 year

100 year

4) Choose other layers to view with topic data.

- ☐ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☐ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View

Enter an address or placename



Pan

Zoom



Draw

Report



GIS File

Report



Data

Max Wave Runup during Flood
000cm SLR + Wave 000

Flood-prone Low-lying Areas
000cm SLR + Wave 000

Flood Hazard 000cm SLR +
Wave 000

Flood Depth 000cm SLR +
Wave 000

0 cm


250 cm

500 cm

750 cm

10 km

5 mi



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[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None

Annual

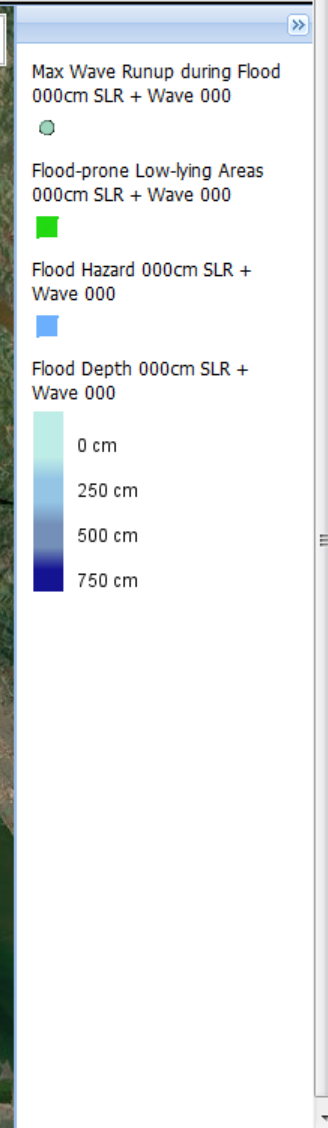
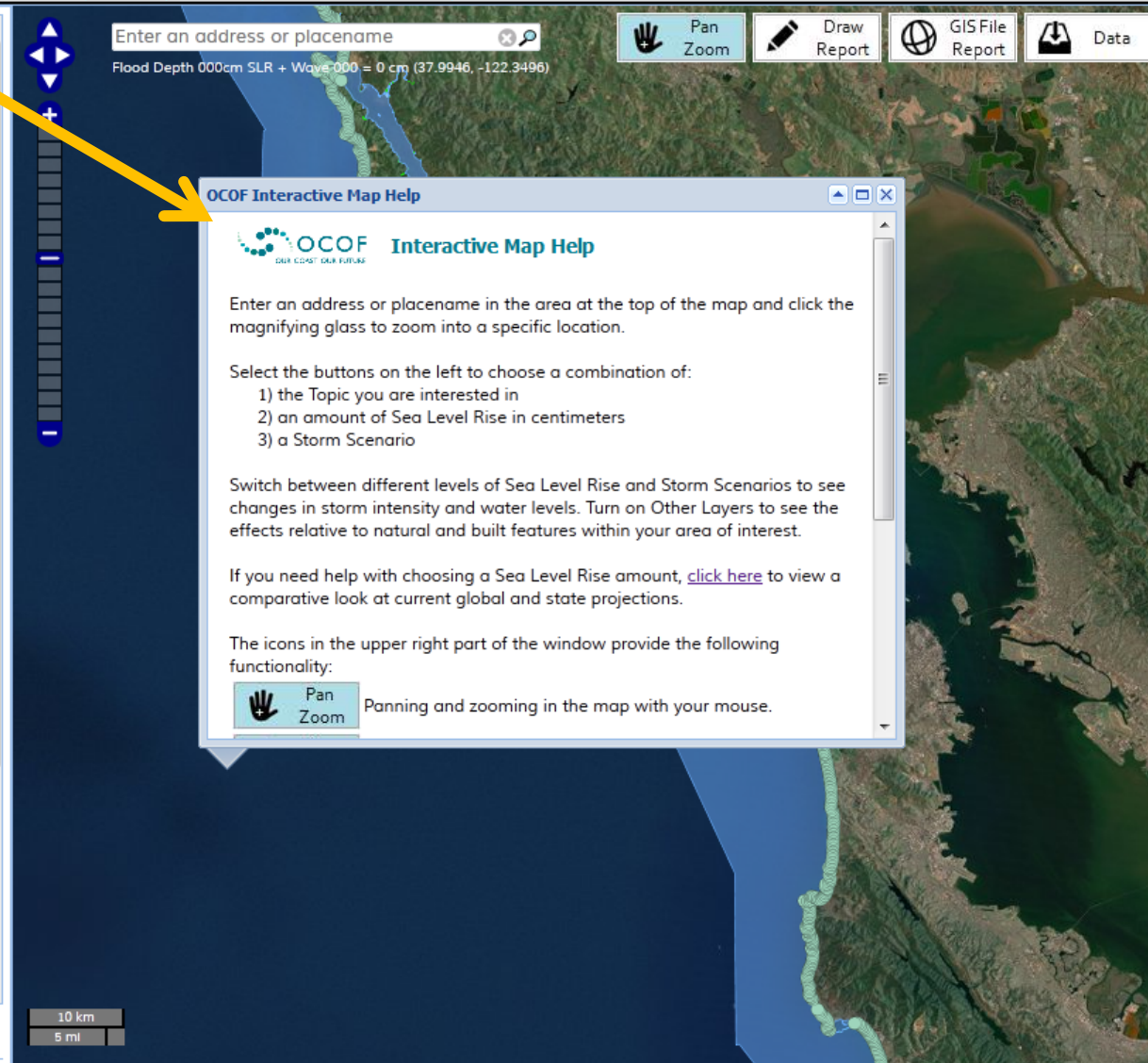
20 year

100 year

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Detail View



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- ☐ Cliff Retreat
- ☐ Coastal Armoring
- ☐ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity

Detail View



doran beach



Pan
Zoom



Draw
Report



GIS File
Report



Data

Max Wave Runup during Flood
000cm SLR + Wave 000



Flood-prone Low-lying Areas
000cm SLR + Wave 000

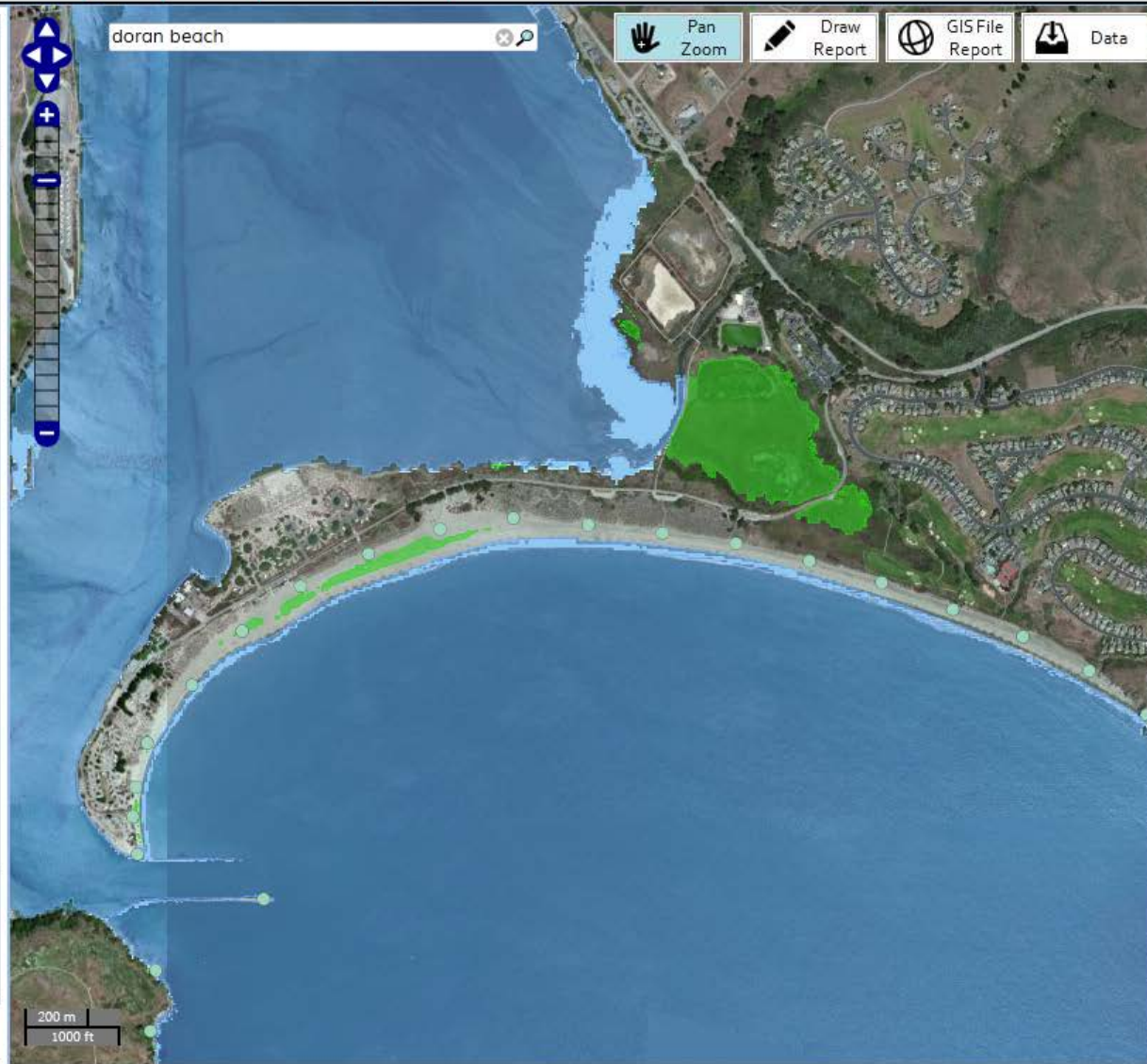


Flood Hazard 000cm SLR +
Wave 000



Flood Depth 000cm SLR +
Wave 000

0 cm
250 cm
500 cm
750 cm



1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding Waves

Current Uncertainty

[What do the Topics represent?](#)

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150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None Annual 20 year 100 year

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- ☐ Cliff Retreat
- ☒ Coastal Armoring
- ☒ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity

Detail View



doran beach



Pan Zoom



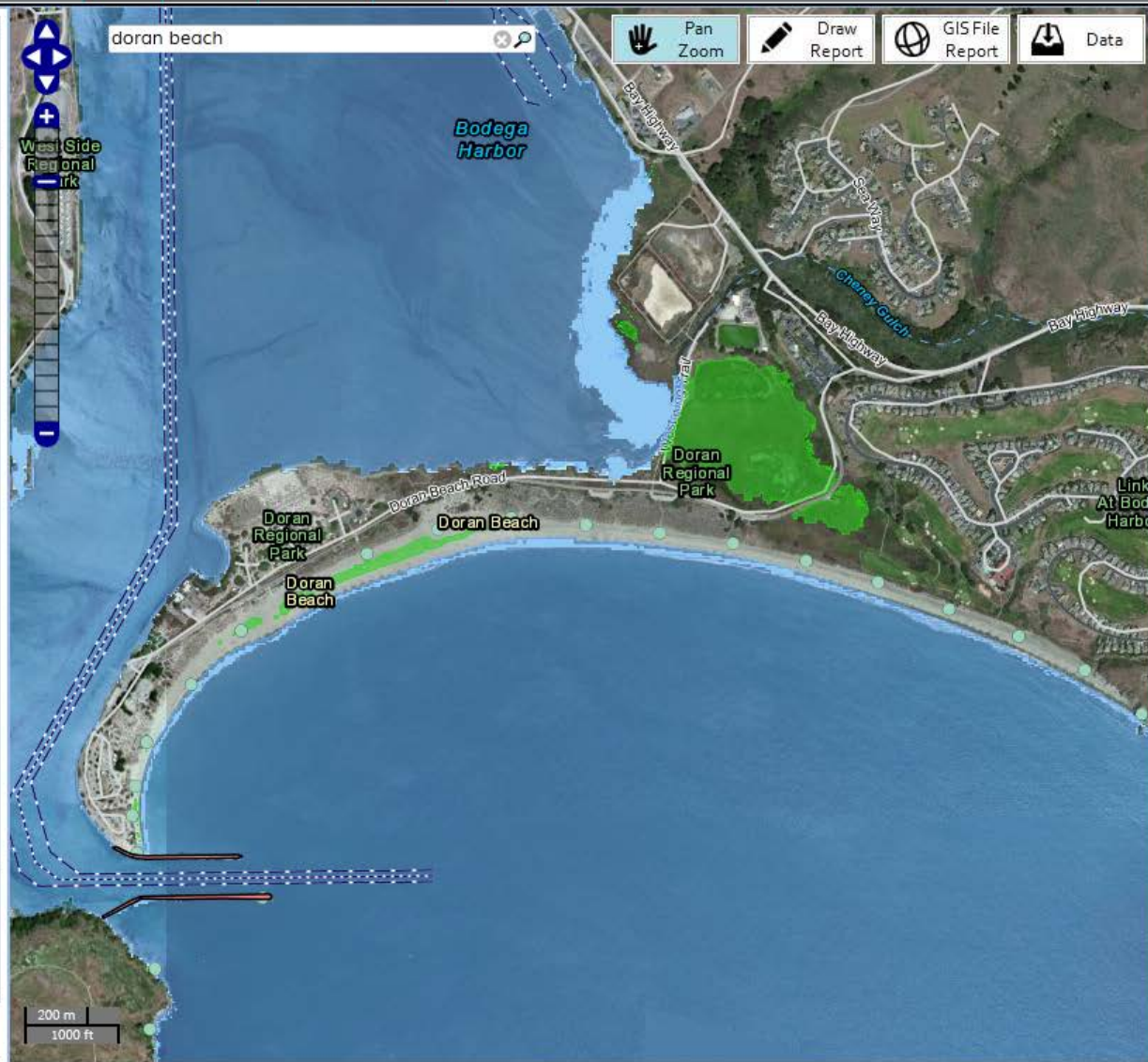
Draw Report



GIS File Report



Data



Coastal Armoring (areas)



Coastal Barriers

- ☒ Piers and Jetties
- ☐ Groins
- ☒ Rock Revetments
- ☒ Constructed Breakwaters
- ☐ Natural Breakwaters

Navigation Channels

- ☒ Navigation Channel Boundary
- ☒ Navigation Channel Centerline

Coastal Armoring (lines)



Max Wave Runup during Flood 000cm SLR + Wave 000



Flood-prone Low-lying Areas 000cm SLR + Wave 000



Flood Hazard 000cm SLR + Wave 000



Flood Depth 000cm SLR + Wave 000



0 cm

250 cm

500 cm

750 cm

Public Transportation

1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding Waves

Current Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None Annual 20 year 100 year

4) Choose other layers to view with topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☒ Coastal Armoring
- ☒ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity

Detail View



doran beach



Pan Zoom



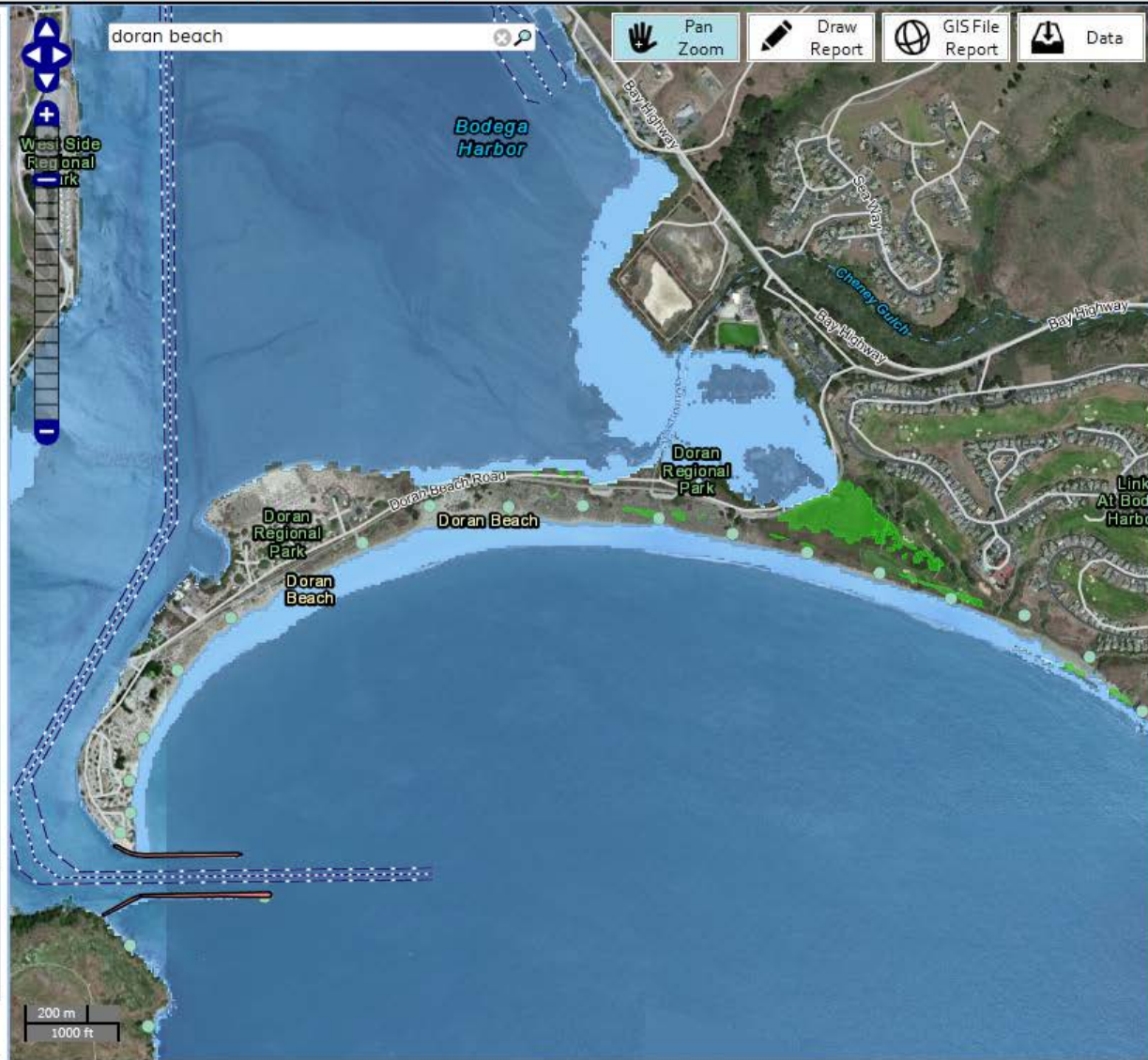
Draw Report



GIS File Report



Data



Coastal Armoring (areas)

- ☒ Coastal Barriers
- ☐ Piers and Jetties
- ☐ Groins
- ☒ Rock Revetments
- ☐ Constructed Breakwaters
- ☐ Natural Breakwaters

Navigation Channels

- ☒ Navigation Channel Boundary
- ☐ Navigation Channel Centerline

Coastal Armoring (lines)

- ☒ Max Wave Runup during Flood 000cm SLR + Wave 020

Flood-prone Low-lying Areas 000cm SLR + Wave 020

- ☒ Flood Hazard 000cm SLR + Wave 020

Flood Depth 000cm SLR + Wave 020

- 0 cm
- 250 cm
- 500 cm
- 750 cm

Public Transportation

1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding

Waves

Current

Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None

Annual

20 year

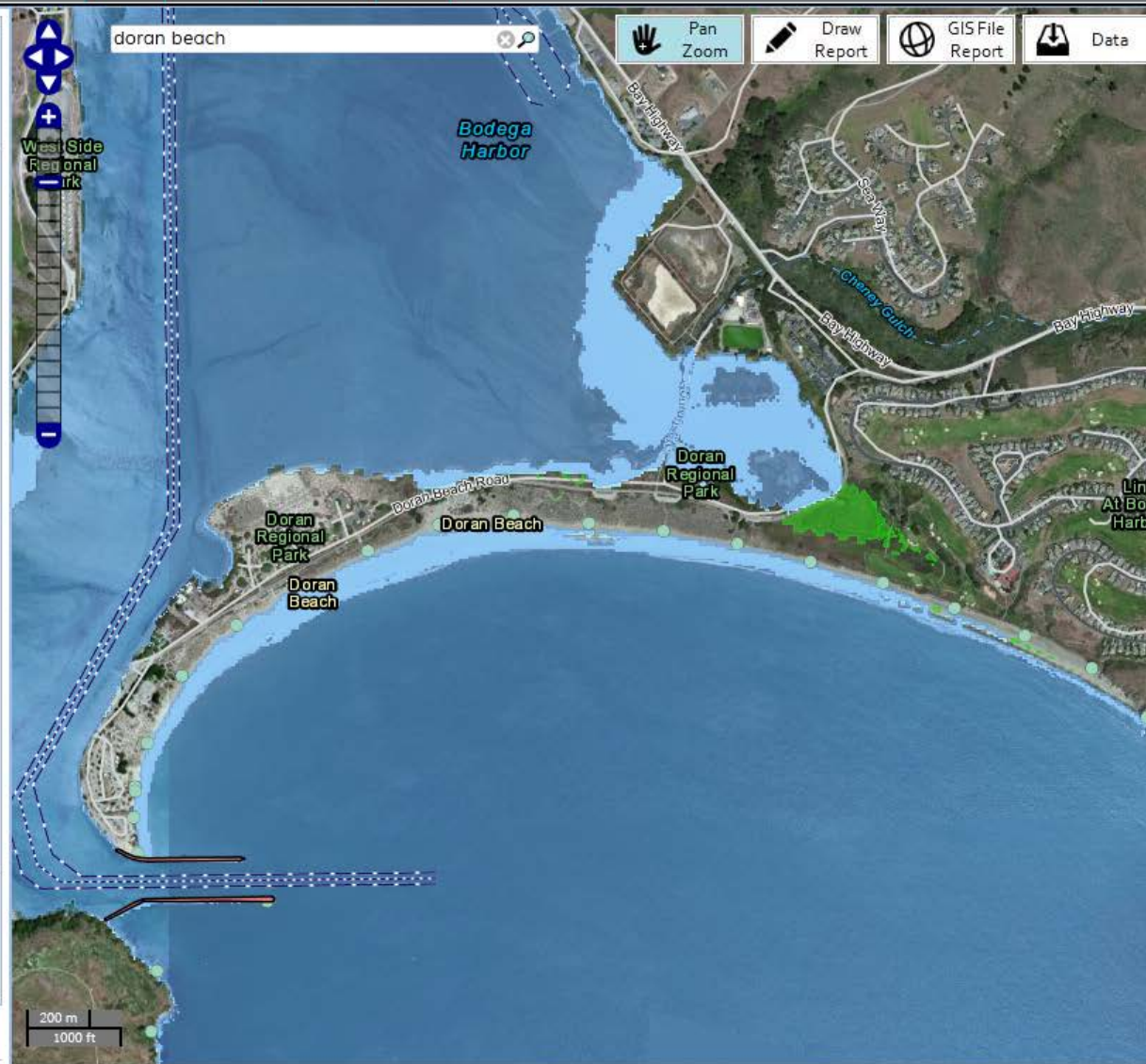
100 year

4) Choose other layers to view with topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☒ Coastal Armoring
- ☒ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity

Detail View



Coastal Armoring (areas)



Coastal Barriers



Piers and Jetties



Groins



Rock Revetments



Constructed Breakwaters



Natural Breakwaters

Navigation Channels



Navigation Channel Boundary



Navigation Channel Centerline

Coastal Armoring (lines)



Max Wave Runup during
Flood 050cm SLR + Wave
000



Flood-prone Low-lying Areas
050cm SLR + Wave 000



Flood Hazard 050cm SLR +
Wave 000



Flood Depth 050cm SLR +
Wave 000

0 cm

250 cm

500 cm

750 cm

Public Transportation

1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding Waves

Current Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None Annual 20 year 100 year

4) Choose other layers to view with topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☒ Coastal Armoring
- ☒ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity

Detail View



doran beach



Pan Zoom



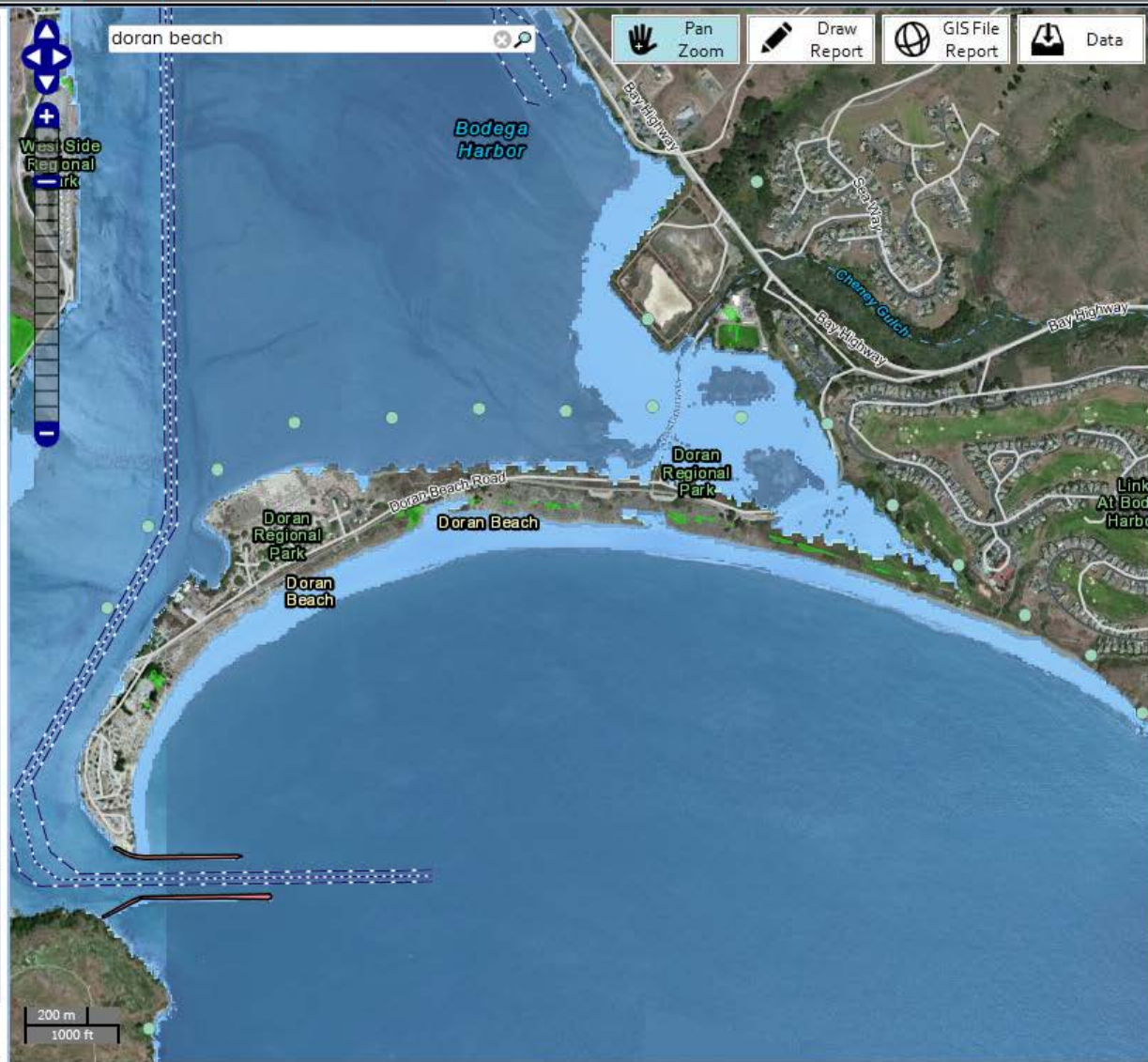
Draw Report



GIS File Report



Data



Coastal Armoring (areas)



Coastal Barriers

- ☒ Piers and Jetties
- ☐ Groins
- ☒ Rock Revetments
- ☒ Constructed Breakwaters
- ☐ Natural Breakwaters

Navigation Channels

- ☒ Navigation Channel Boundary
- ☒ Navigation Channel Centerline

Coastal Armoring (lines)



Max Wave Runup during Flood 050cm SLR + Wave 020



Flood-prone Low-lying Areas 050cm SLR + Wave 020



Flood Hazard 050cm SLR + Wave 020



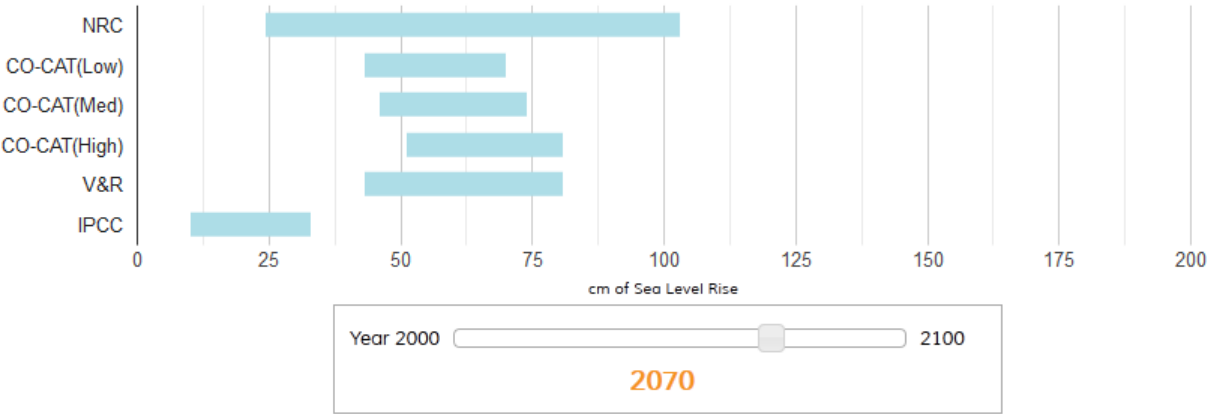
Flood Depth 050cm SLR + Wave 020



Public Transportation

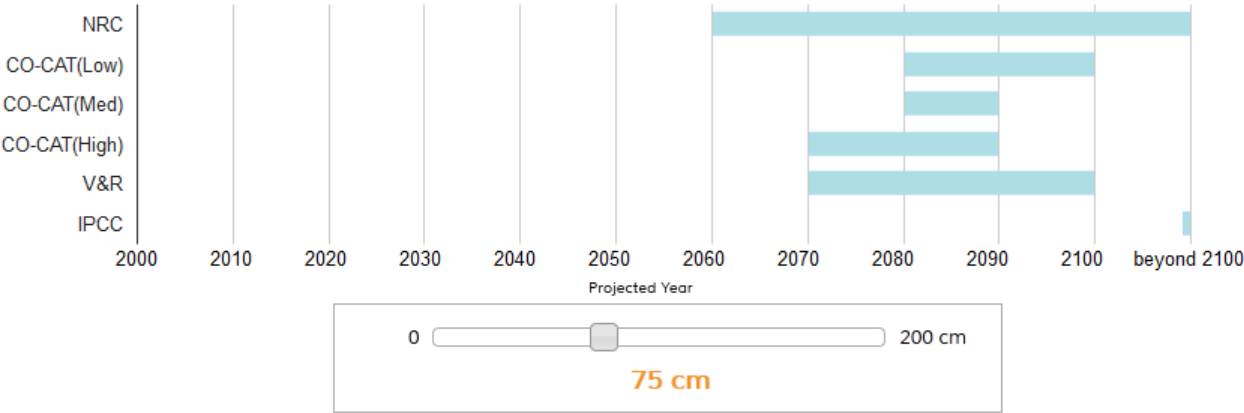
What projections are likely to occur in a given year?

Move the slider control below the graph left and right to see how different climate experts projections of sea level rise compare to one another. Hold your mouse over each bar for details.



When is a projection likely to occur?

Move the slider control below the graph left and right to see how different climate experts projections of when sea level rise will occur compare to one another. Hold your mouse over each bar for details.



get started

clear

recenter

1) Choose a topic.

Wave Height shows how high the waves are coming to shore.

Flooding

Waves

Current

Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None	Annual	20 year	100 year
------	--------	---------	----------

4) Choose other layers to view with topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View



rodeo lagoon



Wave Height 000cm SLR + Wave 000 = 1.249 m (37.8304, -122.5393)

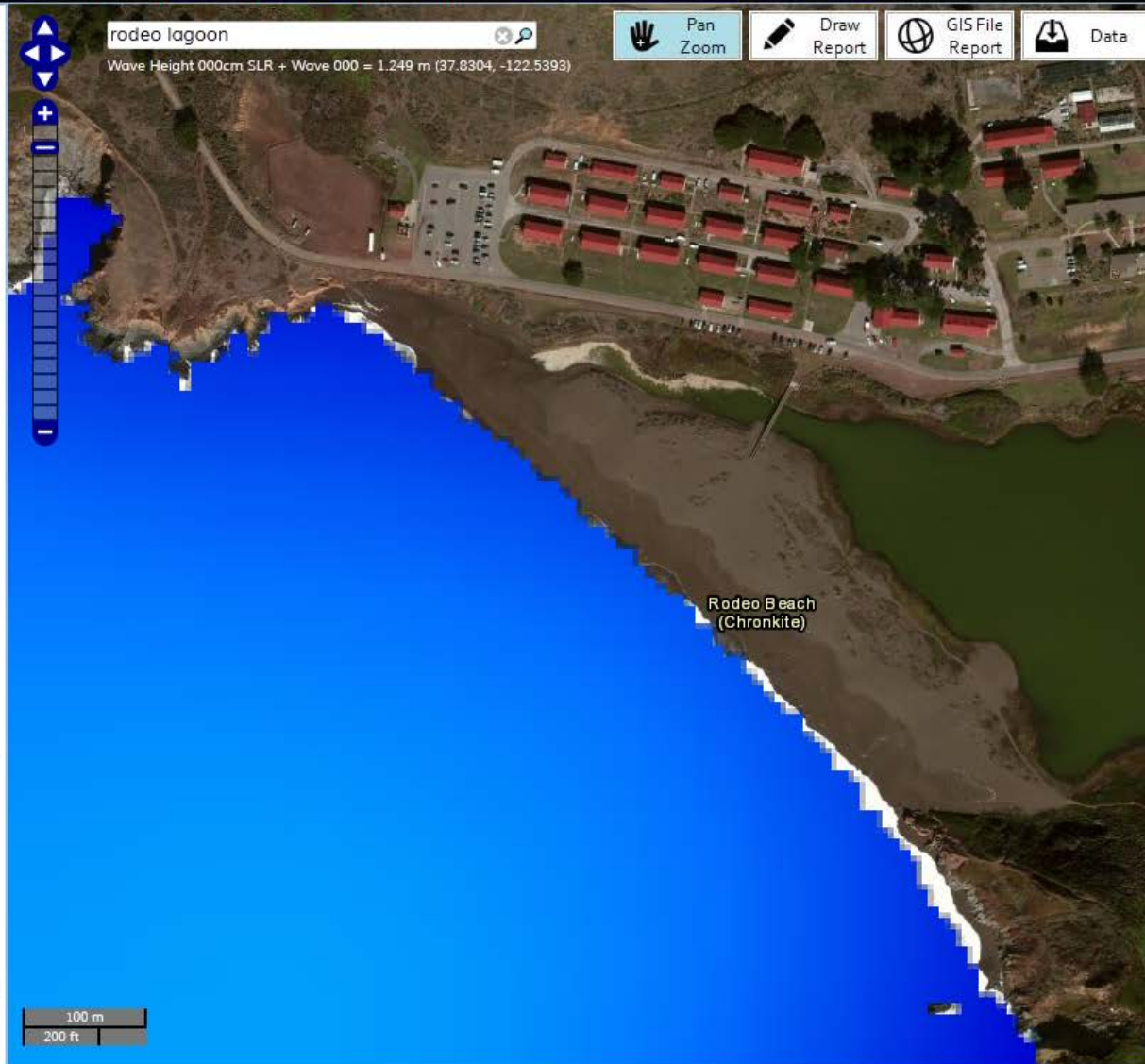
Pan
ZoomDraw
ReportGIS File
Report

Data

Max Wave Height 000cm SLR + Wave 000

- ◇ Less than 1m
- ◇ 1-2m
- ◇ 2-3m
- ◇ 3-4m
- ◇ 4-5m
- ◇ 5-6m
- ◇ 6-7m
- ◇ 7-8m
- ◇ 8-9m
- ◆ Greater than 9m

Wave Height 000cm SLR + Wave 000



get started
clear
recenter

1) Choose a topic.

Wave Height shows how high the waves are coming to shore.

Flooding Waves
Current Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0 25 50 75 100 125
150 175 200 500

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None Annual 20 year 100 year

4) Choose other layers to view with topic data.

☒ Placenames
☐ Land Use
☐ Protected Areas
☒ Rivers & Streams
☐ Cliff Retreat
☐ Coastal Armoring

Detail View

rodeo lagoon

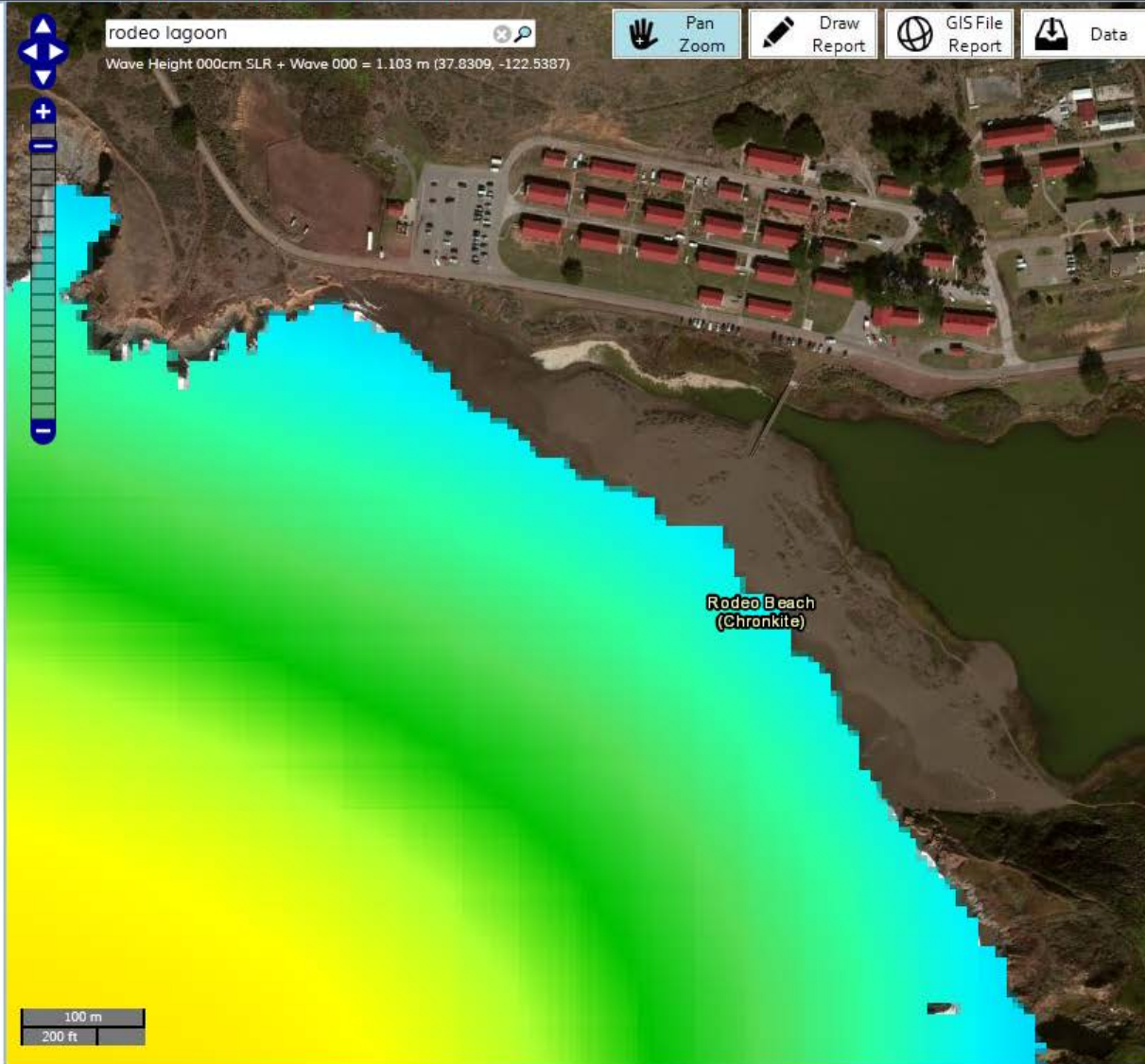
Wave Height 000cm SLR + Wave 000 = 1.103 m (37.8309, -122.5387)

Pan
Zoom

Draw
Report

GIS File
Report

Data



Max Wave Height 000cm SLR + Wave 020

◇ Less than 1m
◇ 1-2m
◇ 2-3m
◇ 3-4m
◇ 4-5m
◇ 5-6m
◇ 6-7m
◇ 7-8m
◇ 8-9m
◆ Greater than 9m

Wave Height 000cm SLR + Wave 020

0-0.5m
0.5-1m
1-1.5m
1.5-2m
2-2.5m
2.5-3m
3-3.5m
3.5-4m
4-4.5m
4.5-5m
5-5.5m
5.5-6m
6-6.5m
6.5-7m

get started

clear

recenter

1) Choose a topic.

Wave Height shows how high the waves are coming to shore.

Flooding

Waves

Current

Uncertainty

[What do the Topics represent?](#)2) Choose a Sea Level
Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)3) Choose a storm scenario
frequency

None Annual 20 year 100 year

4) Choose other layers
to view with
topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View

rodeo lagoon

Wave Height 100cm SLR + Wave 100 = 3.447 m (37.8305, -122.5399)



Pan

Zoom



Draw

Report



GIS File

Report



Data

Max Wave Height 075cm SLR
+ Wave 020

- ◇ Less than 1m
- ◇ 1-2m
- ◇ 2-3m
- ◇ 3-4m
- ◇ 4-5m
- ◇ 5-6m
- ◇ 6-7m
- ◇ 7-8m
- ◇ 8-9m
- ◆ Greater than 9m

Wave Height 075cm SLR +
Wave 020

0-0.5m

0.5-1m

1-1.5m

1.5-2m

2-2.5m

2.5-3m

3-3.5m

3.5-4m

4-4.5m

4.5-5m

5-5.5m

5.5-6m

6-6.5m

6.5-7m

Rodeo Beach
(Chronkite)

100 m

200 ft

get started

clear

recenter

1) Choose a topic.

Current shows the velocity of the ocean waters in a scenario.

Flooding

Waves

Current

Uncertainty

[What do the Topics represent?](#)2) Choose a Sea Level
Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)3) Choose a storm scenario
frequency

None Annual 20 year 100 year

4) Choose other layers
to view with
topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View

rodeo lagoon

Current Velocity 000cm SLR + Wave 000 = 0.398 m per sec (37.8287, -122.5407)

Pan
ZoomDraw
ReportGIS File
Report

Data

Current Velocity 000cm SLR +
Wave 000

0m/s

1m/s

2m/s

3m/s

4m/s

Rivers and Streams

Stream

Intermittent Stream

Rodeo Beach
(Chronkite)

100 m

200 ft

get started

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recenter

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Flooding

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0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)3) Choose a storm scenario
frequency

None Annual 20 year 100 year

4) Choose other layers
to view with
topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View

rodeo lagoon

Current Velocity 000cm SLR + Wave 000 = 0.382 m per sec (37.8288, -122.5406)

Pan
ZoomDraw
ReportGIS File
Report

Data

Current Velocity 000cm SLR +
Wave 020

0m/s

1m/s

2m/s

3m/s

4m/s

Rivers and Streams

Stream

Intermittent Stream

Rodeo Beach
(Chronkite)

100 m

200 ft

get started

clear

recenter

1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding

Waves

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2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None	Annual	20 year	100 year
------	--------	---------	----------

4) Choose other layers to view with topic data.

- ☒ Placenames
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- ☐ Coastal Armoring

Detail View



Max Wave Runup during Flood
075cm SLR + Wave 020

Flood-prone Low-lying Areas
075cm SLR + Wave 020

Flood Hazard 075cm SLR +
Wave 020

Flood Depth 075cm SLR +
Wave 020

0 cm

250 cm

500 cm

750 cm

Rivers and Streams

Stream

Intermittent Stream

get started

clear

recenter

1) Choose a topic.

Uncertainty shows the degree of uncertainty in the scenario results.

Flooding

Waves

Current

Uncertainty

[What do the Topics represent?](#)**2) Choose a Sea Level Rise (cm) level.**

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)**3) Choose a storm scenario frequency**

None	Annual	20 year	100 year
------	--------	---------	----------

4) Choose other layers to view with topic data.

- ☒ Placenames
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- ☐ Protected Areas
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- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View

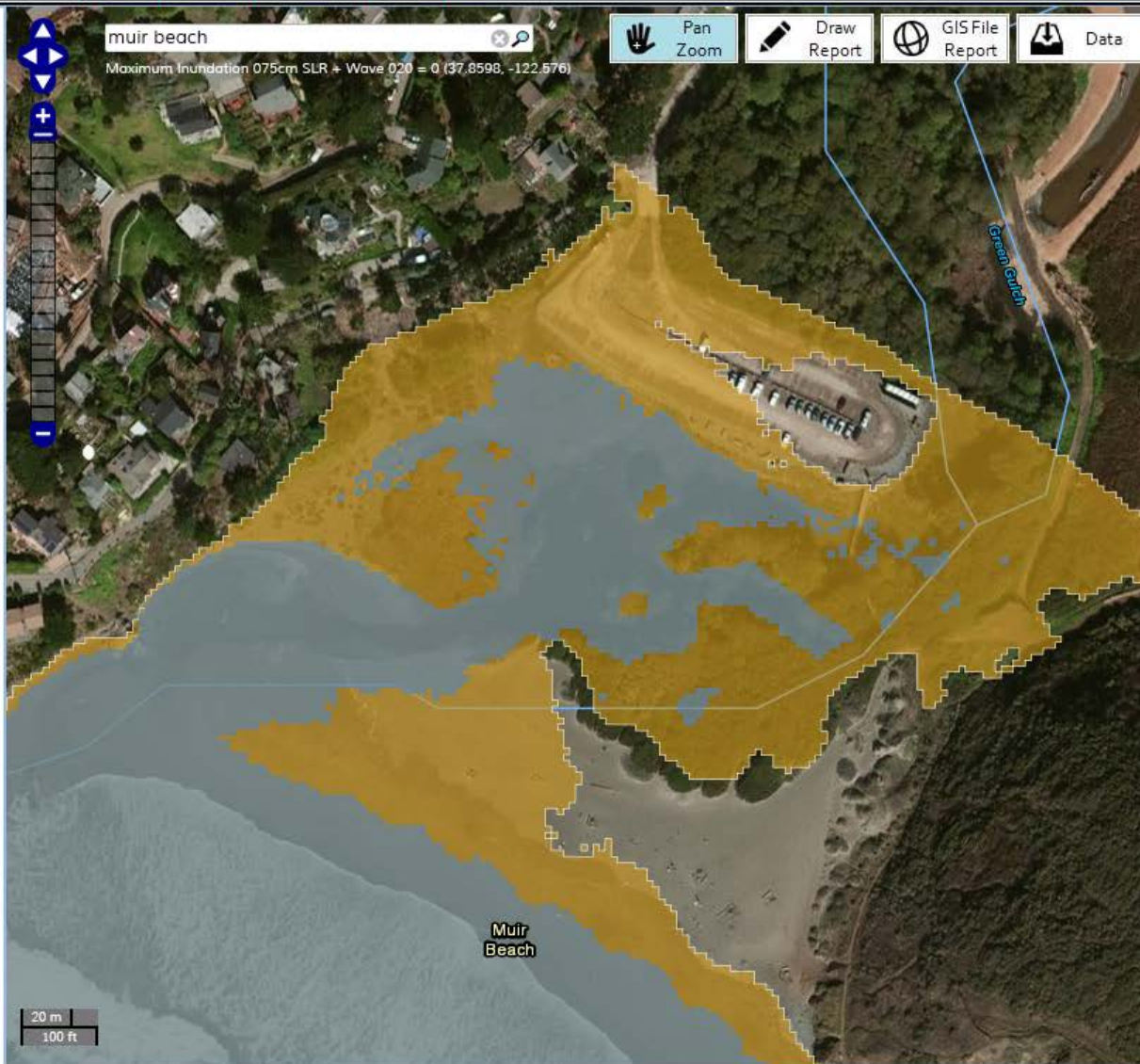


muir beach


Maximum Inundation 075cm SLR + Wave 020 = 0 (37,8598, -122,576)

Pan
ZoomDraw
ReportGIS File
Report

Data

Minimum Inundation 075cm SLR
+ Wave 020Maximum Inundation 075cm SLR
+ Wave 020

Rivers and Streams

 Stream Intermittent Stream

Flooding shows the extent of flooding with SLR and storm surge.

Flooding Waves

Current Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

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- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring
- ☐ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity



Detail View



dorán beach

Pan
ZoomDraw
ReportGIS File
Report

Data

Max Wave Runup during Flood
000cm SLR + Wave 000Flood-prone Low-lying Areas
000cm SLR + Wave 000Flood Hazard 000cm SLR +
Wave 000Flood Depth 000cm SLR +
Wave 000

0 cm

250 cm

500 cm

750 cm

Rivers and Streams

Stream

Intermittent Stream



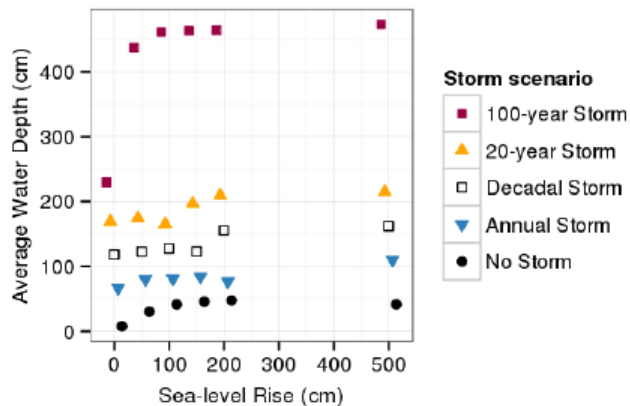
This is the sea level rise and storm scenario report for the area you selected. This report was designed to provide information to help you identify vulnerabilities to sea level rise and storm surges.

Date: 02/19/2013 Time: 6:32 am

Area and Elevation Information

Parameter	Value
Area (m2)	20032.36
Area (ac)	4.95
Area (ha)	2
Mean elevation (m)	2.05
Min. elevation (m)	0
Max. elevation (m)	9.76

Projected Average Flood Depth for the Selected Area





1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding Waves

Current Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0 25 50 75 100 125
150 175 200 500

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None Annual 20 year 100 year

4) Choose other layers to view with topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring
- ☐ Roads and Transportation
- ☐ Buildings
- ☐ Utilities & Services

Opacity

Detail View



rodeo lagoon



Pan
Zoom



Draw
Report



GIS File
Report



Data

Max Wave Runup during Flood
000cm SLR + Wave 000

Flood-prone Low-lying Areas
000cm SLR + Wave 000

Flood Hazard 000cm SLR +
Wave 000

Flood Depth 000cm SLR +
Wave 000

0 cm

250 cm

500 cm

750 cm

Rivers and Streams

OCOF Report from GIS Polygon

Load a GIS file

You can select and upload a KML, KMZ or zipped SHP file with polygons and select one. All uploaded files are expected to be in Latitude/Longitude WGS-84.

Browse_

Close Window

Areas in your GIS file MarinCoastalParking.kmz

Rodeo Beach Parking Lot

zoom

Choose an area...

Stinson Beach - North

Stinson Beach - Central

Stinson Beach - South

Rodeo Beach Parking Lot

Rodeo Beach Street Parking

Muir Beach Parking

20 m

100 ft

1) Choose a topic.

Flooding shows the extent of flooding

with S

Flo

C

2) C

0

150

3) C

No

4) C

☒ P

☐ L

☐ P

☒ R

☐ C

☐ C

☐ R

☐ B

☐ U

OCOFReport_130219073645.pdf - Adobe Reader

File Edit View Window Help

1 / 3 40.1%

Tools Sign Comm



Sea Level Rise and Scenario Report

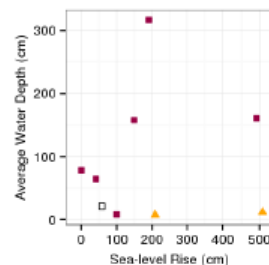
This is the sea level rise and storm scenario report for the area you selected. This report was designed to provide information to help you identify vulnerabilities to sea level rise and storm surges.

Date: 02/19/2013 Time: 7:35 am

Area and Elevation Information

Parameter	Value
Area (m ²)	5841.88
Area (ac)	1.44
Area (ha)	0.58
Mean elevation (m)	2.49
Min. elevation (m)	0
Max. elevation (m)	7.27

Projected Average Flood Depth for the Selected Area



Storm scenario
☒ 100-year Storm
☐ 20-year Storm
☐ Annual Storm

This report was created on 02/19/2013 using the [OCOF Coastal Vulnerability](#) decision support tool

page 1/3

Detail View



20 m
100 ft

rodeo lagoon

Flood Depth 050cm SLR + Wave 020 = 187 cm (37.8961, -122.6409)

Pan
Zoom

Draw
Report

GIS File
Report

Data

Max Wave Runup during Flood
050cm SLR + Wave 020

Flood-prone Low-lying Areas
050cm SLR + Wave 020

Flood Hazard 050cm SLR +
Wave 020

Flood Depth 050cm SLR +
Wave 020

OCOF Report from GIS Polygon

Load a GIS file

You can select and upload a KML, KMZ or zipped SHP file with polyg select one. All uploaded files are expected to be in Latitude/Longitud

Browse...

Close Window

Areas in your GIS file MarinCoastalParking.kmz

Stinson Beach - Central

zoom

create report

get started
clear
recenter

1) Choose a topic.

Flooding shows the extent of flooding with SLR and storm surge.

Flooding Waves

Current Uncertainty

[What do the Topics represent?](#)

2) Choose a Sea Level Rise (cm) level.

0	25	50	75	100	125
150	175	200	500		

[What Sea Level Rise scenario should I use?](#)

3) Choose a storm scenario frequency

None Annual 20 year 100 year

4) Choose other layers to view with topic data.

- ☒ Placenames
- ☐ Land Use
- ☐ Protected Areas
- ☒ Rivers & Streams
- ☐ Cliff Retreat
- ☐ Coastal Armoring

Detail View

muir beach



Pan



Draw



GIS File



Data



Max Wave Runup during Flood
000cm SLR + Wave 000



Flood-prone Low-lying Areas
000cm SLR + Wave 000



Flood Hazard 000cm SLR +
Wave 000



Flood Depth 000cm SLR +
Wave 000



0 cm

250 cm

500 cm

750 cm

Rivers and Streams



Stream



Intermittent Stream

Muir
Beach

20 m
100 ft

get started

muir beach

MAXIMUM FLOOD DEPTH

file:///C:/Users/mfitzgibbon/Desktop/

Citation_Information:

Originator: U.S. Geological Survey
 Originator: Patrick Barnard
 Originator: Amy Foxgrover
 Originator: Li Erikson
 Title: MAXIMUM FLOOD DEPTH
 Online_Linkage: <<http://data.prbo.org/apps/ocof/>>

Description:

Abstract:
 Model projections of MAXIMUM FLOOD DEPTH using the Coastal Storm Modeling System (CoSMoS). Models cover the entire outer coast of the Our Coast Our Future (OCOF) California study area from Bodega Head south to Half Moon Bay including the entire San Francisco Bay shoreline and baylands. Projections include a suite of scenarios for both sea-level rise and storm scenarios. Sea-level rise scenarios span 0-2 meters in 50 cm

Download_Summary.htm Firefox HTML Document
 flooddepth_metadata.html Firefox HTML Document
 SLR000Wave000_flddeep.asc ASC File
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 SLR000Wave000_flddeep.pgww PGW File
 SLR000Wave000_flddeep.png IfranView PNG File
 SLR000Wave000_flddeep.prj PRJ File
 SLR000Wave000_flddeep.tfw TFW File
 SLR000Wave000_flddeep.tif IfranView TIF File
 SLR000Wave000_flddeep.txt TXT File

Size: 22.9 KB
 Date modified: 11/30/2012 4:12 PM - 2/19/2013 ...

Pan Zoom Draw Report GIS File Report Data

OCOF Data Download

7:54:48
 The dataset you requested is available for download by [clicking on this link](#).

Max Wave Runup during Flood 000cm SLR + Wave 000
 Flood-prone Low-lying Areas 000cm SLR + Wave 000
 Flood Hazard 000cm SLR + Wave 000

Data downloaded from th

file:///C:/Users/mfitzgibbon/Desktop/del

Data downloaded from:

OCOF
 OUR COAST OUR FUTURE

Downloaded Data Description

Dataset	CoSMoS Model Results Product Suite More information or discussion on these modeling results
Layer	flddeep - Flood Depth More information
Units	cm
Description	Maximum Depth of Flooding Surface above base elevation of Mean High High Water.

Files included in this download (within zip file)

Content	Format	File name	Notes
The	GeoTiff	SLR000Wave000_flddeep.tif	Data in 4 byte floating point

Mean High Water – Shoreline

Posted on **January 25, 2013** by **Grey Hayes**

It appears that there has been an important development on the Mean High Water mark discussion for decision makers- that the mark should extend inland as if levees and water control structures didn't exist, in some cases:

<http://briscoelaw.net/10-12-09/>

So, wondering if you are accounting for that?

Posted in [Uncategorized](#) | [Leave a reply](#)

[Edit](#)

Mean High Water — Shoreline

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